

Title (en)  
Measurement device, including a PIEZOELECTRIC RESONATOR ELEMENT OF CRYSTALLOGRAPHIC POINT GROUP 32

Title (de)  
Messanordnung, beinhaltend ein PIEZOELEKTRISCHES RESONATORELEMENT DER KRISTALLOGRAPHISCHEN PUNKTGRUPPE 32

Title (fr)  
Dispositif de mesure, comprenant un ELEMENT RESONATEUR PIEZO-ELECTRIQUE DU GROUPE PONCTUEL CRISTALLOGRAPHIQUE 32

Publication  
**EP 1393439 B1 20061122 (DE)**

Application  
**EP 02750626 A 20020528**

Priority  

- AT 0200160 W 20020528
- AT 8482001 A 20010531

Abstract (en)  
[origin: US7053533B2] A piezoelectric resonator element of crystallographic point group 32, which can be operated as a thickness shear resonator contacting a carrier medium includes a singly rotated Y-cut (S 1 ,S 2 ) that is essentially rotated through an angle phi about the crystallographic x-axis, which differs from crystal cuts that are temperature-compensated in air or vacuum, wherein the cut has a negative temperature coefficient of the resonance frequency f(T) in a predetermined temperature range, preferably between 10° C. and 40° C., when there is no contact with the carrier medium, while the value of the linear temperature coefficient a of resonance frequency in the same temperature range is less than 1 ppm/° C., preferably less than 0.5 ppm/° C. when the resonator is in contact with the carrier medium. The resonator element ( 1 ) can additionally be provided with at least one layer sensitive to the parameter to be measured.

IPC 8 full level  
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CPC (source: EP US)  
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Citation (examination)  

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